

WHAT IS CLAIMED IS:

1. An apparatus for controlling the rigidity of vehicle body, which comprises:

5 a controller for controlling a buckling form, which controls the buckling form by adding to a member to be inputted to a collision load a lateral force in the direction substantially perpendicular to said member.

10 2. The apparatus as claimed in Claim 1, wherein said member comprises hollow frame member, and

said controller for controlling a buckling form comprises frame restrictors which are provided on at least one portion of said hollow member in the direction substantially
15 perpendicular to the said hollow member, and restrict the deformation of said frame member through the lateral force, and a restriction regulator which regulates the restriction state of said frame restrictors.

20 3. The apparatus as claimed in Claim 1, wherein said member comprises hollow frame member, and

said controller for controlling a buckling form comprises frame restrictor which is inserted into said frame member in a movable manner, and restricts the deformation of
25 said frame member through the lateral force, and a member for setting a position of said frame restrictor.

4. The apparatus as claimed in any one of Claims 1 to 3, which also has at least one collision detector, and controls the lateral force depending upon the evaluation based on the output from said detector.

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5. The apparatus as claimed in Claim 4, wherein said controller for controlling a buckling form is provided within a bumper.

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6. The apparatus as claimed in Claim 4, wherein said collision detector comprises at least one member selected from distance detector, speed sensor, and CCD camera.

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7. The apparatus as claimed in Claim 4, wherein said collision detector comprises a plurality of distance sensors provided on a bumper.

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8. The apparatus as claimed in Claim 1, wherein the buckling form is assumed to be buckling due to a primary deformation mode and buckling due to a secondary deformation mode, and ratio of the length L of said member to the thickness t of said member " L/T " is set so that the difference between the buckling load at the primary deformation mode and that at the secondary deformation mode is equal to or near the maximum value.

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